

WESTWAYS

SEPTEMBER 1978
SEVENTY-FIVE CENTS



11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100

Calypso Capers

By Hillary Hauser

I swam across the rocks and compared myself favorably with the stars. To swim fishlike, horizontally, was the logical method in a medium eight hundred times denser than air. To halt and hang attached to nothing, no lines or air pipe to the surface, was a dream. At night I often had visions of flying by extending my arms as wings. Now I flew without wings.

IN JUNE OF 1943, Jacques Yves Cousteau made his first scuba dive with a revolutionary breathing device he had developed with the French engineer Emile Gagnan. Captain Cousteau, a French navy gunnery officer, had not been satisfied with the superficial probing of the ocean surface. It was not enough that man could stay and look only as long as he could hold his breath. Cousteau felt that the gas-flow demand regulators, which had already been designed by Gagnan for use on automobiles and in hospital operating rooms during World War II, could be modified for use underwater. Gagnan and Cousteau tried several concepts and finally came up with a successful model of an open-circuit, compressed air scuba.

The window to the sea was finally opened. Not only did Cousteau realize his dream of flying underwater and swimming around like a fish, he, with the practical help of Gagnan, enabled man to take a look inside the ocean and study its innermost secrets.

In the thirty-plus years since the inception of the Aqua-lung, Cousteau's name has become synonymous with ocean exploration. He personally has led numerous teams to explore, examine, and investigate many facets of the submarine world. He has produced films and written books. Hundreds of thousands of people who have never seen an ocean wave have learned of whales, salmon and octopus.

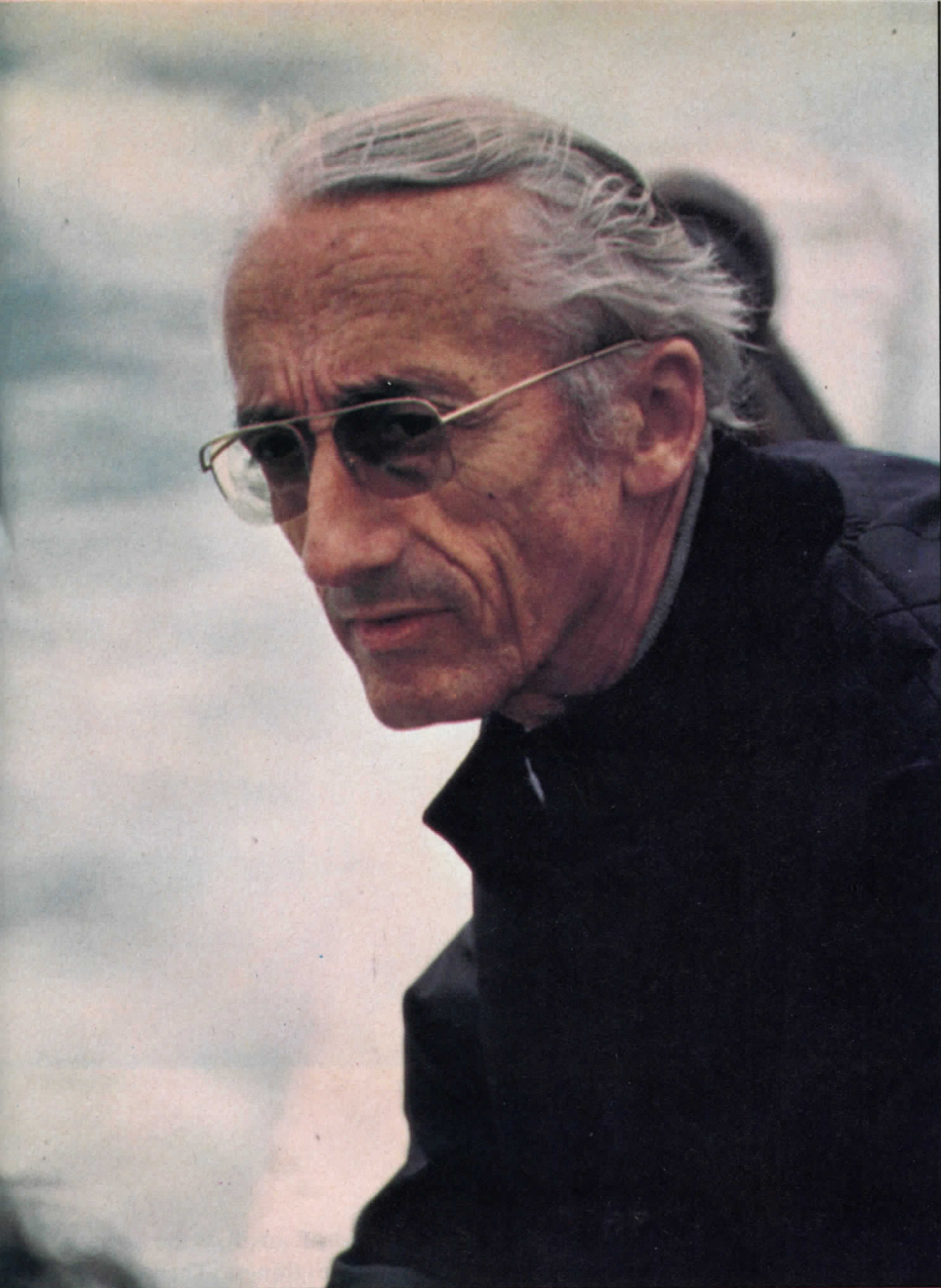
Cousteau has encouraged individuals to see for themselves the beauty of the world he has described. But today he is alarmed. Citing observations, pointing to reefs he knew thirty years ago and comparing them to how they look today, Cousteau makes the point that the oceans of the world are in trouble. He describes reefs that have lost their vitality, and asks people to look at the world's water system in a different way. In September 1973, the Cousteau Society was formed as his vehicle for action.

Each person who joins the society is making the statement that they are concerned about the quality of the water system, about the quality of life in general.

I met Jacques Cousteau in the summer of 1974, when I was assigned to interview him for a national magazine. I went to the Cousteau offices in Los Angeles, a place I remember best for the constant activity of people moving about in rooms that were bedecked with photographic murals of the ocean and of the *Calypso* crew in action, world maps, pictures of sea animals above and below water. Cousteau walked in.

Our meeting began with a customary formality, but it wasn't long before Cousteau became animated, punctuating his thoughts with his hands, emphasizing ideas with his own brand of enthusiasm. When it comes to the sea, he is hardly passive. The crimes against the ocean, the earth's water system, he describes with incredulity. His theme: If we don't care about the seas of the world, we don't care about ourselves.

"We know that the cycle of life in general is identical to the cycle of the water. Because of that, just fighting for



the ocean is not enough. First we have to fight for the entire water system, not only the ocean. There is one water system—the ocean is the biggest part of it—but there is only one system. And, because that water system dramatically conditions the way we live, it follows that fighting for the water system is also fighting for the quality of our lives.”

The “fighting” which Cousteau was referring to sounded somewhat vague to me, but I was yet to get the specifics of his war against ocean abuse. Cousteau continued:

“What we are doing is protecting and improving life, including human life of course—that being our greatest

concern. But the life of other animals is conditioning human life, so we have to get into that. We are not conservationists for the sake of conservation. We are conservationists because it has an influence on the quality of our lives. We are centered on man; but we now know very clearly that we cannot disassociate any living entity from the ocean, from the water system, from the life cycle.”

Cousteau felt that the biggest duty of his society would be to sponsor sea research projects and to inform the public of their findings through every medium available: television, lectures, books, film strips. He saw television as his main artery to the people. He

stressed the need for his organization to be completely independent of government or big business.

“Today, who is controlling the nuclear lever? The Atomic Energy Commission. Those in the nuclear business are controlling themselves. Who is controlling and making the statements about the gaseous content of their smoke effluents? Power companies make the measures and publish the results. Who is making or financing the studies about heat pollution? The nuclear power owners, by commissioning scientists to tell what they want them to say. Who is controlling the water quality? It’s always the agency that controls itself, and that is nonsense.”

Cousteau was adamant: If some commission said that an experiment was *not* harmless and in actuality it *was* harmless, the Cousteau Society would come out and say so, through television, through the news media. It wouldn’t be him alone making the decisions; he foresaw a committee of not only highly qualified scientists but also artists, writers, “all the people who contribute to the progress of the human mind and nothing else . . . the quality of life.”

Cousteau felt that most important actions would come from different parts of the country and that the society would provide its members enough of their own ammunition to fight local battles. His board of advisors would decide the issues and information would then be passed along to members through the *Calypso Log*, a bi-monthly newsletter. Cousteau said to me:

“The water system is essentially the background, the skeleton, of such an enterprise. Against this background, we can provide through the society knowledge and understanding that members can apply to their local fight. The fight must be based on the best information available, not supercharged generalizations.”

I wondered which were the particular issues that he felt needed attention and asked him what he felt about the



Cousteau and colleagues examine a coral sample; above right, the Calypso anchored in the shallows of the Aegean Sea; below, the start of an underwater filming sequence

Law of the Sea conferences. At that time, the 200-mile economic zone was in question. On this subject he was particularly outspoken. He felt that the concept, purpose of the conference—international cooperation—was being betrayed.

"It was a concept by which for the first time in the history of the world natural resources were to be shared equally between all mankind. That was just the greatest hope in the world. . . . It's not international cooperation; it's *sharing*! We want to share the world, we don't want anyone to own it and say, 'All right, we'll give you a piece of it if you behave,' as we are doing now. For the first time in the world we had that opportunity, and it's destroyed. It's blown up by the egotistic approach of nations."

And, he was pessimistic about how nations would monitor themselves

within their designated zones:

"It is obvious that if you leave it to one given nation to organize and exploit their own territorial water the way they want, there will be no protection at all in this area because the people would say, 'All right, protect the environment as well, I'm exploiting my waters.' That is a sure destruction of the environment—the extension of the territorial water. On the contrary, if there were a world organization to control the waters of the world and to exploit them only as far as it does not destroy their resources—which no nation can do because they are too egotistical—that is the only hope to save the world."

Of interest to me was how the Cousteau Society could translate these world problems into a feasible fighting plan. During our talk, I never learned exactly how Cousteau would wage the

war he talked of, or how the society would improve things. These questions were to be answered later, by the things which Cousteau was able to accomplish.

The scientific board of advisors was assembled, this being the committee which Cousteau had envisioned as being people who contribute to the progress of the human mind. Today, this group includes Dr. Harold Edgerton, professor of electronics at MIT and father of strobe lighting; Dr. Henry Kendall of MIT; Dr. H. S. Thayer, professor of philosophy at New York University; Dr. Edward Wenk, director of the program for social management of technology at the University of Washington, Seattle; Dr. Andrew Benson, Scripps Institute of Oceanography; composer-singer John Denver; author-entertainer Dick Gregory, and author Ray Bradbury.



The "Calypso Capers" were launched. In the first one, the society cooperated with the Goddard Space Flight Center in Maryland and Texas A & M University to study oceanic pollution. Additional instruments were installed on *Calypso* to measure oceanographic data such as chemical content of seawater, temperature, depth factors, water colors, kinds and quantities of pollutants present in various regions. Two cruises were undertaken—one along the western coast of Florida and the other in the "plume" of the Mississippi.

The second Calypso Caper was a joint study of NASA and the society, to test the possibility of using LANDSAT satellites to map the shallow areas of the ocean (surface to about 100 feet). Cousteau sees this as a way to increase the safety of navigation now that more-and more tankers are

traveling up and down coastal areas. Along these same lines, Cousteau has advocated a permanent global remote sensing system, to monitor productivity and pollution—using satellites and permanently assigned aircrafts. The satellites would collect data from thousands of instrumented buoys, drifting and anchored, in the oceans of the world. His Project Columbus will be an enactment of this idea. Inflatable, parachutable, instrumented buoys developed by the society will be anchored off the coast of Monaco, others to go off the Atlantic coast of southern Spain.

On another front, the society entered a feasibility study with the city of Saint Petersburg, Florida, for a complex that would contain dockside facilities for research vessels, documentation sources, labs, lecture halls and a public museum. The facility, called

the Cousteau Society Center, will be entirely powered by wind and solar energy, with all of its liquid effluent to receive tertiary purification. Cousteau's hope is that the new facilities will serve as an example/model for other public buildings.

But Cousteau's biggest aim is to educate and inform the public, turning people on to the ocean, getting them interested in the modern problems that are associated with the sea. He has contracted with KCET-Los Angeles to produce television specials, all under the title, "Cousteau Odyssey." Filmstrips have been produced for junior and senior high schools, called "The Water Planet," and additional strips will be produced over the next five years. The society publishes the *Calypso Log*, and Cousteau writes regular columns for the *Saturday Review*, entitled "The Pulse of the Sea." A book is planned for Doubleday—*White Odyssey*—the diary of Jacques and Philippe Cousteau written during their 1973 *Calypso* voyage to the Antarctic.

At the bottom of all this ceaseless activity that has characterized Cousteau's years in the sea is his love of exploration. Cousteau was once asked what motivated him to explore, and it boiled down to the question, "Why does man explore?" He wrote:

"The more time I spend observing nature, the more I believe man's motivation for exploration is but the sophistication of a universal, instinctive drive deeply ingrained in all living creatures. The exploration drive—pure, natural—is associated with risk, freedom, initiative . . . it's the way in which the mind can scan events or facts that are apparently uncorrelated to see if there is not, in reality, a hidden correlation. It has often led us, and many others, to important breakthroughs."

In 1948 this exploration drive resulted in the Cousteau-Gagnan discovery of man's window to the sea. Today, this same drive is the compelling force behind Cousteau's efforts to keep the sea worth seeing. **W**